development of licensed nurses and continuing nursing education credit will be provided.

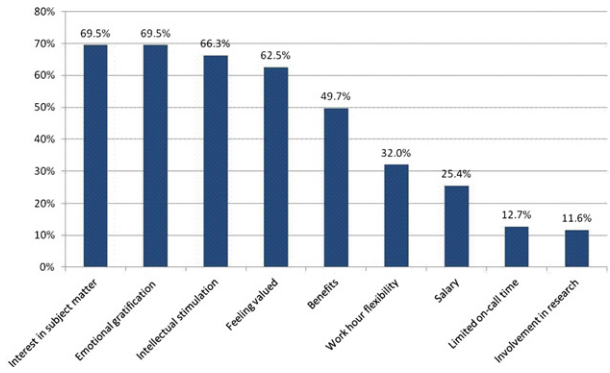

Figure 1. Most Important Aspects of Nursing Career for Nursing Students Surveyed (N=181)

TRANSPLANT NURSING-CLINICAL ORAL

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Implementation and Maintenance of Practice Guidelines to Decrease Central Line Associated Bloodstream Infections by Minimizing Line Manipulation

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Background: The adult blood and marrow transplant population is at high risk for central line associated bloodstream infections (CLABSI). CLABSI remains a large cause of morbidity, increased cost, prolonged hospitalization and mortality in this population. One source of these infections is line manipulation; specifically at the central venous access device (CVAD) needless hub. Several studies have consistently found yeast and heavy bacterial contamination on the surface of the CVAD hub. Our aim was to decrease line manipulation in order to decrease our unit's CLABSI rate.

Implementation: In late 2010 our unit practice council created new guidelines for accessing and maintaining central lines. These guidelines included: patients on continuous IVs will not be disconnected to shower, walk, etc. and patients whose lines are accessed greater than two time a day (excluding labs) will remain connected continuously at a provider prescribed rate. Our definition of each access included one connection and disconnection. Nursing staff were educated about the new guidelines via email and staff meetings. Providers were educated during a Blood and Marrow Transplant Program Quality Improvement Committee meeting. In February of 2012, these guidelines were revised to include the continuous connection of all neutropenic patients receiving any IV fluids or medications. When not neutropenic, we continued to have patients with greater than two accesses per day connected continuously.

Evaluation: During the 2010 calendar year our inpatient BMT unit had 13 CLABSI, resulting in a 3.35 CLABSI rate per 1000 patient days. During the 2011 calendar year our inpatient BMT unit had 5 CLABSI, resulting in a 1.27 CLABSI rate per 1000 patient days. There was a 62 percent reduction in CLABSI from 2010 to 2011. For the first nine months of the 2012 calendar year our inpatient BMT unit has had 3 CLABSI, resulting in a 1.07 CLABSI rate per 1000 patient days. There was a 16 percent reduction in CLABSI from 2011 to the first 3 quarters of 2012.

Discussion: We were able to successfully implement a best practice based intervention through creating new guidelines for accessing and maintaining central lines and saw a significant decrease in our CLABSI rate.

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Improving Reliability of Immunosuppressant Sampling Techniques

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Problem: The Colorado Blood Cancer Institute BMT Program at Presbyterian/St. Luke's Medical Center, a member of the Sarah Cannon Blood Cancer Network, performed 242 hematopoietic cell transplants in 2011. The program noted 14 confirmed TAC/CSA lumen contaminations in 2010. In March 2011, auditing revealed 5 additional contaminations. This prompted a process improvement initiative. Goals were to improve quality outcomes by increasing reliability of TAC/CSA levels and resulting dose adjustments and improve patient satisfaction with the process (lumen contamination necessitates peripheral sampling causing increased discomfort and risk for patients).

The BMT Leadership team reviewed potential causes: Forty new staff hired; census and acuity were higher; Travelers and float staff were utilized. A process was needed to ensure TAC/CSA levels were reliable and bedside caregivers had appropriate knowledge to manage TAC/CSA infusions and samplings.

Intervention: Immediate efforts focused on nursing staff re-education.

1. Upon admission, nursing to designate a lumen for TAC/CSA infusion.
2. No TAC/CSA sampling will be drawn from designated lumen.
3. TAC/CSA infusion is primary line infusing into dedicated port.
4. TAC/CSA infusion turned off 10 minutes prior to level sampling.

The unit-based council led this initiative. They recommended alerts to the special nature of these drugs. While under review, another contamination occurred. Additional recommendations made:

1. BMT Float guidelines reviewed -TAC/CSA process added.
2. TAC/CSA process included in traveler orientation
3. RN Resource assigned to new hires, floats, and travelers.
4. TAC/CSA education poster displayed on BMT units.

In February 2012, another contamination was noted. The BMT Leadership team and unit-based council convened to review additional opportunities.

1. Mandatory Healthstream education developed. Healthstream is an electronic education system which includes documentation of compliance.
2. Clamp unused lumens during sampling process.
3. Interdisciplinary collaboration to create a pop up screen when medication is scanned-“Infuse in designated lumen ONLY. For help, see your charge nurse.”